

REMARKS

Applicants thank the Examiner for the thorough consideration given the present application. Claims 1-6 and 28 are currently under consideration. Claims 9-19, 30 and 31 have been withdrawn from consideration. Claims 7, 8, 20-27 and 29 have been cancelled. The Examiner is respectfully requested to reconsider her rejections in view of his amendments and remarks as set forth below.

Information Disclosure Statements

The Examiner has acknowledged the Information Disclosure Statements filed on May 12, 2003 and August 23, 2004. The references listed in the U.S. Patent Documents and foreign Patent Documents sections of the PTO 1449 have been initialed by the Examiner. However, it is noted that the Examiner has not initialed the five references listed in the Other Documents section. These are all abstracts of Japanese Patents. The Examiner has not provided any reason for refusing to consider these references. The Examiner is requested to reconsider these references. It is noted that these abstracts have been cited as "other references" rather than as foreign patents and accordingly should be accepted without the corresponding Japanese documents.

Rejection Under 35 USC §103

Claims 1, 2, 5, 6, 28 and 29 stand rejected under 35 USC §103 as being obvious over Mori et al. (JP 08-222695) in view of Inoue (U.S. Patent 4,960,983). This rejection is respectfully traversed.

In regard to claim 29, this claim has been cancelled rendering this part of the rejection moot. Claim 1 has been amended to include the limitations of claim 29.

The Examiner points out that Mori et al. shows a conductor forming a coil having a plurality of directly contacting layers. The Examiner admits that Mori et al. does not show either a metal sputtered layer or a metal evaporated layer along with a metal plated layer. The Examiner relies on Inoue to teach the use of sputtering metal layers. The Examiner also points out that the particular type of process used for forming each metal layer should not be given patentable weight under the rules of product-by-process claims.

Applicants submit that the claims are not obvious over Mori et al. in view of Inoue. First, it is noted that the preamble in claim 1 describes an IC element formed integrally with a coil. Mori et al. provides a coil having a small size for a monolithic microwave IC. However, the Examiner has not pointed out and Applicants do not see, where the integrated circuit element is formed in this device. Further, it does not appear that this device is used to perform contactless data communication with external equipment as required in

the preamble. Furthermore, it is not seen that the coil is located entirely on a surface of the IC element as required by the language which has been added to claim 1. Since the IC has not been defined in this reference, it is not seen how the coil can be said to be formed entirely on its surface. Previously, in regard to claim 29, the Examiner only stated that "the entirety of said coil is formed at a surface of said IC element (for example: see Fig. 1)". Applicants do not see that Fig. 1 shows the IC element in the coil formed thereon entirely. If the Examiner persists in this rejection, she is requested to be more specific as to where the IC element is shown and how the coil is formed entirely on its surface. For these reasons, Applicants submit that Mori et al. does not show the present invention.

The Examiner cited the Inoue reference to show the sputtering of metal layers. In addition, it is noted that the IC card of Inoue is used for non-contact transfer of information. However, it is clear that the integrated circuit of this unit does not have the coil formed entirely on its surface either. Thus, the combination of Inoue and Mori et al. still does not show the coil formed on the surface of the integrated circuit. Accordingly, Applicants submit that claim 1 is not obvious over these two references.

Claims 2-6 and 28 depend from claim 1 and as such are also considered to be allowable. In addition, each of these claims adds

other limitations which makes these claims additionally allowable. In particular, claim 3 describes the input/output terminals and their size relationship to the line width of the coil. Claim 4 describes the corners of the spirals as being chamfered. Claim 28 describes the relative resistances of the layers. Accordingly, these claims are considered to be additionally allowable.

Claim 3 stands rejected under 35 USC §103 as being obvious over Mori et al. in view of Inoue and McDonough et al. (U.S. Published Appl. 2001/0044013). This rejection is respectfully traversed.

First, Applicants request clarification of the statement of the rejection. Although the Examiner discusses the relevance of McDonough et al., the Examiner first discusses the teachings of Droz which is not included in the statement of the rejection. The Examiner is requested to make it clear as to whether this is a three way rejection or a four way rejection.

In regard to the teachings of McDonough et al., the Examiner indicates that this reference shows the use of through-holes to provide dielectric hole contact. Even if this is the case, Applicant submits that neither McDonough et al. nor the other references teach the particular arrangement of having a smaller diameter of the through-hole than the line width of the coil. Accordingly, Applicants submit that claim 3 is further allowable.

Claim 4 stands rejected under 35 USC §103 as being obvious over Mori et al. in view of Inoue et al. and Sakamoto et al. (U.S. Published Appl. 2001/0002874). This rejection is respectfully traversed.

The Examiner cites the Sakamoto et al. reference to show a coil with chamfered corners. However, even if this reference does teach this feature, Applicants submit that it does not aid the other two references in overcoming their deficiencies noted above. Accordingly, Applicants submit that three way combination still does not show the teaching of the present invention.

Conclusion

In view of the above remarks, it is believed that the claims clearly distinguish over the patents relied on by the Examiner either alone or in combination. In view of this, reconsideration of the rejections and allowance of all the claims are respectfully requested.

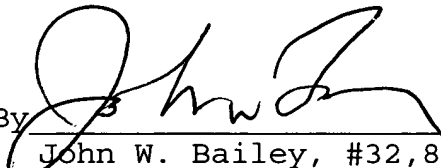
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert F. Gnuse (Reg. No. 27,295) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicants respectfully petition for a one-month extension of time for filing a reply in connection with the present application, and the required fee of \$120 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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